

GOODBYE TEACHER, GOOD OLD FRIEND

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Fred Keller came to Brazil in 1961, as a Fulbright Scholar, by chance. Some call it fate or destiny. From the North American side, it certainly took a lot of concentrated effort and the usual red tape. What happened on the Brazilian side of the cooperation is not clear. Writing on the subject, Keller said that a Brazilian student taking undergraduate courses at Columbia once asked him if he would like to visit Brazil. He said yes and later received a formal invitation, a letter signed by a dean of the University of São Paulo. However, arriving in São Paulo, Fred and Frances found out that the dean had been replaced and no one at the Department of Psychology knew that he was coming!

After discovering who the elderly gentleman was and perceiving the importance of having the chairman of the Psychology Department of Columbia as visiting professor, the Brazilian side shone at what we are really good at: improvisation. Two young assistant professors, Carolina Bori and Rodolpho Azzi, were in charge of Keller, but it was Carolina Bori alone who received the Kellers at the airport. The former dean, who signed that official letter of invitation, offered accommodation in his biology laboratory. By word of mouth we, undergraduate psychology students, were advised that a special course on experimental psychology was being offered. Why I didn't enroll has been explained in *JEAB* before (Todorov, 1990). But a few bright students attended.

Keller understood the situation and felt at home. The old boy, born and raised in small cities in New York and Florida, after two world wars and two wives, was ready for anything. In no time he organized a group. Mario Guidi, one of the students, was good at building mechanical and electrical artifacts. Maria Amélia Matos, Dora Fix, and Maria Inês Rocha e Silva were fluent in English and were hard workers.

The young assistant professors, originally interested in social psychology, discovered Skinner. In a few months Keller, with no money and no facilities, was teaching the introductory course originally devised for Columbia and had a research project going on, dealing with delay of reinforcement (Azzi, Fix, Keller, & Rocha e Silva, 1964).

Frances and Fred Keller conquered São Paulo with their charm. Consider the situation: In the early 1960s, after the Cuban revolution, the motto in all of Latin America was "Yankee go home!" The student political movement was intense. I don't know about the others, but Rodolpho Azzi, then a member of the Brazilian Communist Party, and I, working at the student union as part of a church-based organization, were active in the nationalistic movement. Keller conquered ideology and politics. He was himself and taught us to look ahead.

Back in the United States, he received another invitation. By this time, we were organized. A new university was planned for Brasília. As part of a grandiose plan for Brazil, the new capital was supposed to be a break from the past, a spearhead for the development of huge areas of the Brazilian hinterland. Presidente Juscelino Kubitschek, in five years (1955-1960), had set the country afire. The best of the Brazilian intellectuals had contributed to plan the city *and* the university. Psychology received a special distinction: to adapt the old ways of teaching to the new scenario. The word of order was: What is known in the technology of teaching? So Fred S. Keller was invited (provoked, baited, lured?) to come back to Brazil.

Darcy Ribeiro was the first president of the University of Brasília. Keller wrote about Darcy: "Darcy Ribeiro had encouraged my colleagues to be experimental, with respect to form as well as content of our teaching." In New York, Keller had meetings with Carolina Bori, Rodolpho Azzi, and J. Gilmour Sherman (who, by Keller's recommendation, was

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the next visiting professor in the Fulbright program).

The result was a combination of different experiences, beginning with Skinner's teaching machines, Holland and Skinner's (1961) programmed book, Ferster's experimentation at the Institute for Behavioral Research at Silver Spring, Maryland, and the teaching methods at Columbia and Harvard.

The end result was quite something. Too good to be true. Decades ahead of its time. Without exaggeration, the world was not prepared for Keller's personalized system of instruction (PSI). I entered into this story by adventitious competence. I was the best student in Gil Sherman's class, an introduction to the experimental analysis of behavior, at the University of São Paulo, back in 1962. Correction: I was the best student as far as the rat's behavior was concerned. I had an intimate relation with my rat. We understood each other. Actually, I was invited to form the group that was going to Brasília because of my rat's behavior! By that time I had a bright future ahead. Before graduation, I was already an employee of the General Electric Corporation. I accepted the invitation to come to Brasília, losing money. The idea was exciting (and I was quite young; nowadays I would think twice). We had a special thing, a sense of a mission. Everybody worked hard, building Skinner boxes, preparing electromechanical devices for control, and translating important texts into Portuguese. I don't know exactly why, but I received the task of translating into Portuguese Skinner's *Science and Human Behavior* (1953). By that time I could read English, but I was "illiterate" in spoken English. It worked: Rodolpho Azzi supervised the translation, and it was published by the University of Brasília in 1967.

In January of 1964 we were ready to go to Brasília, and Fred and Frances came for a half-year stay. Their coming was a party. We all were part of a project, a lot of coordinated work in New York and São Paulo that took over two years, and we were ready to go to Brasília. Not even a military coup d'état changed the plans. After some weeks of anguish, the new president of the University of Brasília, Zeferino Vaz, asked the group to move to Brasília. On May 12, 1964, I had my first dry martini with the Kellers in the bar of the Hotel Nacional.

The experience was new for Brazil, even today. We are world famous for improvisation. There was no improvisation with Keller's plan for the University of Brasília. When the PSI began in August of 1964, everything was ready. Rodolpho Azzi and I were working on the second semester for the next year, dealing mostly with human behavior. Unfortunately, a political crisis in 1965 ended the experience at the University of Brasília. Keller's group was dismantled. By that time I was a teaching assistant at Arizona State University, helping Gil Sherman with the laboratory part of a PSI course. The Paulistas went back to São Paulo, and Fred and Gil continued to develop the Brasília Plan in Arizona.

Those were traumatic days for Keller, and his diary shows that. He was angry. He was a Brazilian at heart. In October of 1972, Fred and Frances returned to Brazil to find an unexpected thing: They had an incredible number of intellectual grandchildren who loved them. These young people were meeting the Kellers for the first time, but nevertheless they knew everything about them. These were the students of Carolina, Rodolpho, Isaias Pessotti, Maria Amélia, Mário Guidi, Rachel Kerbauy, and Dora Fix Ventura. We all found out the meaning of a popular saying: "God writes straight through sinuous curves." The crisis of 1965 weakened behavior analysis at the University of Brasília, but the seeds germinated elsewhere. In 1972 we had students greeting Keller in Ribeirão Preto, São Paulo, students who came from Belém, on the Amazon, a three-day trip by bus.

Fred and Frances visited Brazil several times after that. As always, Fred read his speeches in Portuguese. He never really mastered the spoken language, but he could read and write quite well. His favorite author used to be Jorge Amado. I think he read practically all of Amado's works in the original (his books are translated into dozens of languages). Two years ago the old boy was a bit tired. He and Silvia Todorov decided that, to keep up with his readings in Portuguese, he should move to Agatha Christie's mysteries in the Portuguese version.

Fred became a Brazilian. Once, in Mexico City, Frances was busy shopping. Fred sat on a bench in a plaza, worried about the cost of that shopping spree. Several kids were playing in the plaza, curious about that elderly

man sitting alone. One of the boys approached and greeted Keller. He answered in Portuguese. The kid was astonished. He shouted in Spanish, "Come on boys, he is not a gringo!"

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